



Dart Aerospace Ltd.
1270 Aberdeen St
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Canada

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RBW109-3130-82-139**Job Sheet 188801****Part No:** RBW109-3130-82-139**Job Qty:** 1 pcs**Part Name:** Tail Rotor Bushing Removal Tool**Part Weight:** 0 lbs**Status:** Scheduled**Priority:** Medium**Job Created:** 1/15/19**Job Tracking No:****Due Date:** 2/21/19**Created By:** Marie Lajeunesse**Type:** SOLD**Description:****Note:** DWG RBW109-3130-82-139 Rev.2 IPP Rev. A 18.12.19 New issue DP Verify DD**Ship Via:****Bill of Materials****Container No:** S160675**Part:** RBW109-3130-82-139**Job No:** 188801**Serial No/Batch:** S160675**Revision:** 2**Inspector:****Exp Date:****Instructions:**

Dart Aerospace Ltd.
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CANADA
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Date: 03/08/19

Job Routing									
Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
95	Small Fab - 1	1 pcs	2/21/19	0.00	0.00		Small Fab - 1		MCC
							Small Fab - 2		
							Small Fab - 3		
							Small Fab - 4		
							Small Fab - 5		
							Small Fab - 6		
							Small Fab - 7		
100	Small Fab - 2 - B4B	1 pcs	2/21/19	0.00	1.00		Small Fab - 1		MCC
							Small Fab - 2		
							Small Fab - 3		
							Small Fab - 4		
							Small Fab - 5		
							Small Fab - 6		
							Small Fab - 7		
110	QC 5	1 pcs	2/21/19	0.00	0.00		QC 5 - 10		DAS 40 9-89
							QC 5 - 12		
							QC 5 - 17		
							QC 5 - 18		
							QC 5 - 19		
							QC 5 - 22		
							QC 5 - 24		
							QC 5 - 3		
							QC 5 - 38		
							QC 5 - 42		
							QC 5 - 43		
							QC 5 - 49		
							QC 5 - 51		
							QC 5 - 58		
							QC 5 - 68		
							QC 5 - 9		
120	Packaging 3-1 - Stock - B4B	1 pcs	2/21/19	0.00	0.00		Packaging 3 - 1 - B4B		DAS 21
							Packaging 3 - 2 - B4B		
							Packaging 3 - 3 - B4B		
							Packaging 3 - 4 - B4B		
							Packaging 3 - 5 - B4B		
130	QC 21 - FG	1 pcs	2/21/19	0.00	0.00		QC 21 - FG - 21		MAR 08 2019

Part Op 95 - 1-Engrave placard RB41011 using marktronic engraver 2-Transfer drill Dart placard RB41011 into Pelican case APP-Descriptions: 1500-E 3-Deburr holes and remove chips from case. 4-Rivet Dart placard to Pelican case 5-Glue placard RBW109-3130-82-139-11 and RBW109-3130-82-139-13 to RBW109-3130-82-139-9 foam as per DWG. 6-Glue foam to case and pack case as per DWG.

100 - 1-Engrave placard RB41011 using marktronic engraver 2-Transfer drill Dart placard RB41011 into Pelican case APP-1500-E 3-Deburr holes and remove chips from case. 4-Rivet Dart placard to Pelican case 5-Glue placard RBW109-3130-82-139-11 and RBW109-3130-82-139-13 to RBW109-3130-82-139-9 foam as per DWG. 6-Glue foam to case and pack case as per DWG.

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
APP-1500-E	Case	1 Ea (1 ea)	95-Small Fab - 1	
97524A032	Sealing Blind Rivet	4 Ea (4 ea)	100-Small Fab - 2 - B4B	
RB41011	Dart Tooling Placard, Aluminum	1 Ea (1 ea)	100-Small Fab - 2 - B4B	
RBW109-3130-82-103	Bushing Removal Tool	1 pcs (1 ea)	100-Small Fab - 2 - B4B	
RBW109-3130-82-105	Bushing Installation Tool	1 pcs (1 ea)	100-Small Fab - 2 - B4B	
RBW109-3130-82-139-11	Identification Placard	1 pcs (1 ea)	100-Small Fab - 2 - B4B	
RBW109-3130-82-139-13	Location Placard	1 pcs (1 ea)	100-Small Fab - 2 - B4B	
RBW109-3130-82-139-7	Bottom Foam use in case APP-1500-E	1 Ea (1 ea)	100-Small Fab - 2 - B4B	
RBW109-3130-82-139-9	Lid Foam use in case APP-1500-E	1 Ea (1 ea)	100-Small Fab - 2 - B4B	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
95-Small Fab - 1	APP-1500-E	1	1	1
Allocated Container Detail				
	Qty	Container No	Location	Init
	1	S150264	ga151f	_____
100-Small Fab - 2 - B4B	97524A032	4	398	4
Allocated Container Detail				
	Qty	Container No	Location	Init
	4	S160626	ga040	_____
	RB41011	1	391	1
Allocated Container Detail				
	Qty	Container No	Location	Init
	1	S160627	ga140e	_____
	RBW109-3130-82-103	1	2	0
	RBW109-3130-82-105	1	2	0
	RBW109-3130-82-139-11	1	2	0
	RBW109-3130-82-139-13	1	2	0
	RBW109-3130-82-139-7	1	1	1
Allocated Container Detail				
	Qty	Container No	Location	Init
	1	S150266	ga151f	_____
	RBW109-3130-82-139-9	1	1	1
Allocated Container Detail				
	Qty	Container No	Location	Init
	1	S150265	ga151f	_____

Part Specifications

Specifications could not be found.

Plex 3/8/19 7:36 AM Dart.Hadley.Shannon



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RBW109-3130-82-139
Job Sheet 188801



1730

Part No: RBW109-3130-82-139

Job Qty: 1 pcs

Part Name: Tail Rotor Bushing Removal Tool



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 1/15/19

Job Tracking No:

Due Date: 2/21/19

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG RBW109-3130-82-139 Rev.2 IPP Rev. A 18 12 19 Issue DP Verify DD

Ship Via:

Missing stock
in sub Assy
20 min

Op No	Operation	Qty	Start Date	End Date	Hrs	Workcenter / Supplier	Lead Time	Sign-off
100	Small Fab - 1	1 pcs	2/21/19	0.00	1.00	Small Fab - 1		
						Small Fab - 2		
						Small Fab - 3		
						Small Fab - 4		
						Small Fab - 5		
						Small Fab - 6		
						Small Fab - 7		
110	QC 5	1 pcs	2/21/19	0.00	0.00	QC 5 - 10		
						QC 5 - 12		
						QC 5 - 17		
						QC 5 - 18		
						QC 5 - 19		
						QC 5 - 22		
						QC 5 - 24		
						QC 5 - 3		
						QC 5 - 38		
						QC 5 - 42		
						QC 5 - 43		
						QC 5 - 49		
						QC 5 - 51		
						QC 5 - 58		
						QC 5 - 68		
120	Packaging 3-1 - Stock - B4B	1 pcs	2/21/19	0.00	0.00	Packaging 3 - 1 - B4B		
						Packaging 3 - 2 - B4B		
						Packaging 3 - 3 - B4B		
						Packaging 3 - 4 - B4B		
						Packaging 3 - 5 - B4B		
130	QC 21 - FG	1 pcs	2/21/19	0.00	0.00	QC 21 - FG - 21		

Part Op 100 - 1-Engrave placard RB41011 using marktronic engraver 2-Transfer drill Dart placard RB41011 into Pelican case
Descriptions: APP-1500-E 3-Deburr holes and remove chips from case. 4-Rivet Dart placard to Pelican case 5-Glue placard RBW109-3130-82-139-11 and RBW109-3130-82-139-13 to RBW109-3130-82-139-9 foam as per DWG. 6-Glue foam to case and pack case as per DWG.

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Preservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
97524A032	Sealing Blind Rivet	4 Ea (4 ea)	100-Small Fab - 1	513449
APP-1500-E	Case	1 Ea (1 ea)	100-Small Fab - 1	5150264
RB41011	Dart Tooling Placard, Aluminum	1 Ea (1 ea)	100-Small Fab - 1	5021040
RBW109-3130-82-103	Bushing Removal Tool	1 pcs (1 ea)	100-Small Fab - 1	-5160621
RBW109-3130-82-105	Bushing Installation Tool	1 pcs (1 ea)	100-Small Fab - 1	-5159960
RBW109-3130-82-139-11	Identification Placard	1 pcs (1 ea)	100-Small Fab - 1	5160625
RBW109-3130-82-139-13	Location Placard	1 pcs (1 ea)	100-Small Fab - 1	5160623
RBW109-3130-82-139-7	Bottom Foam	1 (1 ea)	100-Small Fab - 1	5150266
RBW109-3130-82-139-9	Lid Foam	1 (1 ea)	100-Small Fab - 1	5150265

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Small Fab - 1	97524A032	4	474	0
	APP-1500-E	1	0	0
	RB41011	1	491	0
	RBW109-3130-82-103	1	0	0
	RBW109-3130-82-105	1	0	0
	RBW109-3130-82-139-11	1	0	0
	RBW109-3130-82-139-13	1	0	0
	RBW109-3130-82-139-7	1	0	0
	RBW109-3130-82-139-9	1	0	0

Part Specifications

Specifications could not be found.

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

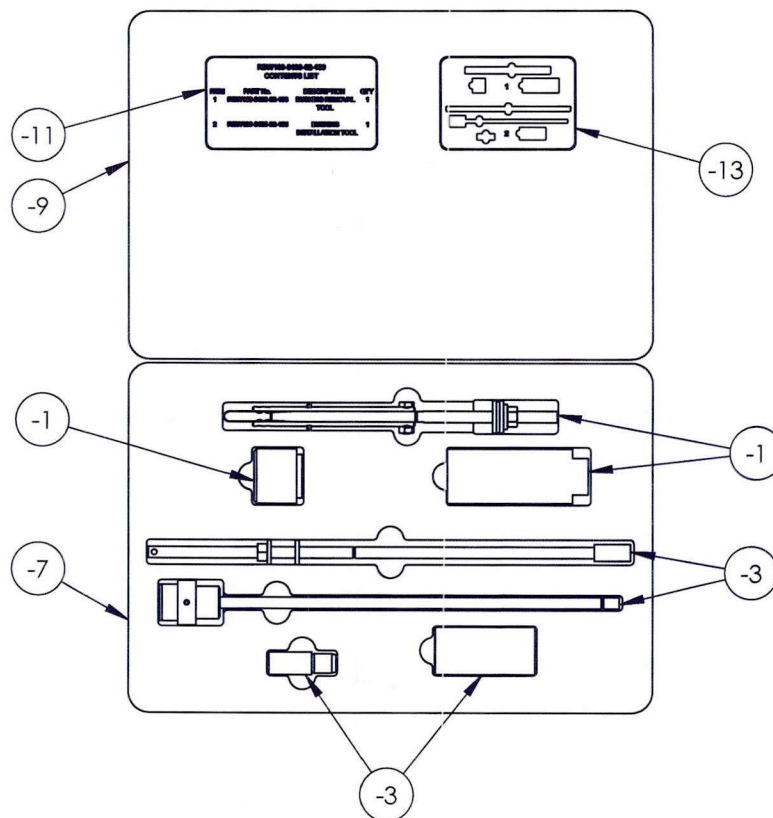
NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐ ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled		FAULT CATEGORY ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		CH'D -111 MATERIAL THICKNESS FROM .011 (.28mm), ADDED MISSING Ø.094 DIMENSION, ADDED FORMED VIEW, CH'D MATERIAL FROM SPRING STEEL, CH'D -115 HEAT TREAT FROM RC 30-36.	5/7/12	RJC	SE
2	14-0230	SEPARATED TOOLS RBW109-3130-82-103 AND RBW109-3130-82-105 FROM KIT, -9 CH'D FOAM WAS EGGSHELL BLACK IS Y20 BLACK. 15 CH'D PLACARD WAS RED BARN RBT41009 IS DART RBT41011.	1/7/2015	RJC	JAG



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WITHOUT NOTICE
WORK ORDER

NO. 188801 MWS
19-01-15

NOTE:
REF. AGUSTA T/N: 109-3130-82-139.

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
				1	T/R BUSHING REMA OVAL TOOL		RBW109-3130-82-103	1
				1	T/R BUSHING INSTALLATION TOOL		RBW109-3130-82-105	1
		B/O	-5	1	CASE	PLASTIC	PELICAN CASE #APP-1500-E	N/S
		B/O	-7	1	BOTTOM FOAM	Y20 BLACK	4.31 X 11.40 X 17.00 IR SPECIALTIES	2
		B/O	-9	1	LID FOAM	Y20 BLACK	1.81 X 11.40 X 17.00 IR SPEC IALTIES	3
			-11	1	IDENTIFICATION PLACARD	P..ASTIC		4
			-13	1	LOCATION PLACARD	P..ASTIC		5
		B/O	-15	1	DART PLACARD	ALUMINUM	#RB41011	N/S

DART AEROSPACE	
TITLE T/R SHAFT BUSHING REMOVAL/INSTALLATION TOOL	
DWG NO. RBW109-3130-82-139	REV 2
MAT'L UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1	DRAWN BY: PERRITT APPROVED: D Weil HEAT TREAT FINISH SPEC
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON MODEL AW109, AW119
SCALE 1:6	DATE 8/26/2010
SHEET 1 OF 5	